ENGINEERING AND INDUSTRIAL CLASSIFICATION OF SRI LANKAN BRICK CLAYS

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The soil classfication commonly used in soil mechanics work has been evolved for stable temperature climate soils. It is now becoming increasingly clear that such a classification is unsuitable for tropical soils. Furthermore, the temperate zone classification system does not provide information on the suitability of soils for industrial applications.

As a result of the study of brick clays from the conventional clay fields in Sri Lanka, a classification of clays for brickmaking has been attempted on the basis of plasticity and particle size distribution.

Samples of residual and sedimentary brick clays were examined using physical, mechanical and mineralogical techniques. Basic properties, particularly Atterberg limits particle size distribution, clay fraction etc. were investigated in the natural state.

It was found that plastic properties of clays provide a meansof differentiating residual clays from sedimentary clays. Although plastic properties within a group are sufficiently variable, sedimentary clays of definite origin show marked linearity on the plasticity chart.

The position of the straight line with respect to the A-line appears to be dependent on the mineralogy of clay under investigation. The textural classification is of importance in the selection of clays with suitable forming characteristics.